

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25. (cancelled)

26. (new) An antibody having specificity against an epitope of a N-acetylglycosaminyltransferase V-b protein comprising an amino acid sequence of SEQ ID NO. 2, 4, or 6, or an N-acetylglycosaminyltransferase V-c protein comprising an amino acid sequence of SEQ ID NO. 10 or 12.

27. (new) An antibody as claimed in claim 26 labeled with a detectable substance and used to detect the protein in biological samples, tissues, and cells.

28. (new) A probe comprising a sequence encoding a N-acetylglycosaminyltransferase V-b protein or an N-acetylglycosaminyltransferase V-c protein as defined in claim 26, or a part thereof.

29. (new) A method of diagnosing and monitoring conditions mediated by a N-acetylglycosaminyltransferase V-b protein or N-acetylglycosaminyltransferase V-c protein by determining the presence of a N-acetylglycosaminyltransferase V-b protein or a N-acetylglycosaminyltransferase V-c protein as defined in claim 26, or a nucleic acid molecule encoding the protein.

30. (new) A method for identifying a substance which associates with a N-acetylglycosaminyltransferase V-b protein or a N-acetylglycosaminyltransferase V-c protein as defined in claim 26 comprising (a) reacting the protein with at least one substance which potentially can associate with the protein, under conditions which permit the association between the substance and protein, and (b) removing or detecting protein associated with the substance, wherein detection of associated protein and substance indicates the substance associates with the protein.

31. (new) A method as claimed in claim 30 wherein association of the protein with the substance is detected by assaying for substance-protein complexes, for free substance, for non-complexed protein, or for activation of the protein.

32. (new) A method for evaluating a compound for its ability to modulate the biological activity of a N-acetylglycosaminyltransferase V-b protein or a N-acetylglycosaminyltransferase V-c protein as defined in claim 26 comprising providing a known concentration of the protein with a substance which associates with the protein and a test compound under conditions which

permit the formation of complexes between the substance and protein, and removing and/or detecting complexes.

33. (new) A method for detecting a nucleic acid molecule encoding a N-acetylglycosaminyltransferase V-b protein or a N-acetylglycosaminyltransferase V-c protein as defined in claim 26 in a biological sample comprising the steps of: (a) hybridizing the nucleic acid molecule to nucleic acids of the biological sample, thereby forming a hybridization complex; and (b) detecting the hybridization complex wherein the presence of the hybridization complex correlates with the presence of a nucleic acid molecule encoding the protein in the biological sample.

34. (new) A method as claimed in claim 33 wherein nucleic acids of the biological sample are amplified by the polymerase chain reaction prior to the hybridizing step.

35. (new) A method for treating a condition mediated by a N-acetylglycosaminyltransferase V-b protein or a N-acetylglycosaminyltransferase V-c protein as defined in claim 26 comprising administering an effective amount of an antibody as claimed in claim 26.

36. (new) A method for treating a condition mediated by a N-acetylglycosaminyltransferase V-b protein or an N-acetylglycosaminyltransferase V-c protein as defined in claim 26 comprising administering an effective amount of an antibody as claimed in claim 26.

37. (new) A composition comprising one or more of a N-acetylglycosaminyltransferase V-b protein or an N-acetylglycosaminyltransferase V-c protein as defined in claim 26, or a nucleic acid molecule encoding the protein, and a pharmaceutically acceptable carrier, excipient or diluent.

38. (new) Use of one or more of a N-acetylglycosaminyltransferase V-b protein or an N-acetylglycosaminyltransferase V-c protein as defined in claim 26, or a nucleic acid molecule encoding the protein in the preparation of a pharmaceutical composition for treating a condition mediated by the protein

39. (new) A gene-based therapy directed at the brain comprising a polynucleotide comprising all or a portion of a regulatory sequence of SEQ. ID. NO. 7 or 8.

40. (new) A method for preparing an oligosaccharide comprising contacting a reaction mixture comprising an activated GlcNAc, and an acceptor in the presence of a N-acetylglycosaminyltransferase V-b protein or an N-acetylglycosaminyltransferase V-c protein as defined in claim 26.